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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,747	04/01/2002	Thomas Kraus	740123-402	1888

22204 7590 07/10/2003

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EXAMINER

SCHEUERMANN, DAVID W

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,747

Applicant(s)

KRAUS ET AL.

Examiner

David W. Scheuermann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-22, 24 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-22, 24, and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 December 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The examiner has considered the information disclosure statement (IDS) submitted on July 23, 2002. The U. S. patent documents are shown crossed off in order to prevent duplicate printing as they appear on the 892 attached to the previous Office Action.

Response to Arguments

Applicant's arguments with respect to claim 19 have been considered but are moot in view of the new ground(s) of rejection.

The 112 rejections to the acronyms have been overcome adding the meaning into the claims. The 112 rejection as regards the "contour of the worm wheel" has been overcome.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 -21, 24 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al., US 4616164 in view of Mochizuki et al., US 4857812. Kenny et al. discloses a drive comprising electric motor 18, driving a wheel 30, a gearbox 10

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surrounding the wheel, electrical components 72 and 78 for controlling operation of the electric motor, the gearbox included carrier 16 which bears the motor and the wheel, and a cover 58 made of plastic onto which electric components 72 and 78 are mounted. Kenny et al. does not expressly disclose the wheel being a worm wheel or electronic components mounted directly to the box cover. Mochizuki et al. disclose both a worm wheel used to transmit power from a motor and an electronic circuit attached directly to a gear housing cover, for the purpose of minimizing the space requirement for accommodating the control circuit within the housing as set forth in column 2, lines 13-17. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use worm wheel to transmit power from the motor and attach electronic components to the cover of the gear housing of Kenny et al. One of ordinary skill in the art would have been motivated to do this to minimize the space requirement for accommodating the control circuit within the housing.

Re claims 20-21 note that Mochizuki et al. teach using a hybrid IC in column 3, lines 35-38. This hybrid IC is equivalent to the application specific integrated circuit.

As to claims 29 and 30, it would have obvious to include an additional card parallel to the cover as it is well known in the art to locate PC boards in parallel within a housing as an expedient packing arrangement.

Claim 22 is are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kenny et al. and Mochizuki et al. in further view of Hwang et al., US 6426573. The combination of Kenny et al. and Mochizuki et al. show the invention as claimed except the electronic components formed as a surface-mounted device.

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Hwang et al. teach using surface mounting, "...for meeting the need to fast and precisely mount such semiconductor devices into the printed circuit board (PCB)." column 1, lines 15-20. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the teachings of Hwang et al. to surface mount the electronic component to the cover. One of ordinary skill in the art would have been motivated to do this to attach the component in a precise and fast manner.

Claims 31- 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kenny et al. and Mochizuki et al. in further view of Schneider et al., US 4614886. The combination of Kenny et al. and Mochizuki et al. show the invention as claimed except for the brush plate system. In the analogous art of motor drives, Schneider et al. teach forming a gear cover connector receptacle and brush plate out of a single piece of plastic. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the teachings of Schneider et al. to make the brush holder, connector and cover of Mochizuki et al out of a single piece of plastic. One of ordinary skill in the art would have been motivated to do this to reduce production costs and simplify mounting as suggested by Schneider et al., in column 1, lines 21-24.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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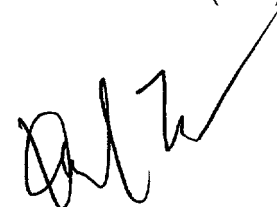
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is (703) 308-9637. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Dws
July 1, 2003



KARL TAMAI
PRIMARY EXAMINER